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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,402	12/07/2000	Jun Kametani	P/2291-94	9886
7590	12/15/2004			
Steven I. Weisburd Dickstein, Shapiro, Morin & Oshinsky LLP 1177 Avenue of the Americas 41st Floor New York, NY 10036-2714			EXAMINER TSEGAYE, SABA	
			ART UNIT 2662	PAPER NUMBER
DATE MAILED: 12/15/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/732,402

Applicant(s)

KAMETANI, JUN

Examiner

Saba Tsegaye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 10 is objected to because of the following informalities: the claim is confusing because there is no mention of a second memory. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification fails to describe a cache memory.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, line 6, the phrase "the search table" lacks antecedent basis.

In claim 24, line 10, the phrase "the flow table" lacks antecedent basis.

Claim Rejections - 35 USC § 102

6. Claims 10, 11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Oguchi et al. (US 6,304,912).

Oguchi discloses, in Fig. 10, a routing table (a first table 53) for storing a plurality of next hop addresses (column 7, lines 50-55); a cache memory 43 storing an IP flow table for storing at least one next-hop address which has been selected from the routing table (column 8, lines 5-9); a third memory 73 for storing a list of retrieved next hop address entries (column 46, line 48-column 47, line 31); and a data controller for accessing a desired retrieved next hop address entry by referring to the list stored in the third memory (column 46, line 48-column 47, line 31).

Regarding claim 11, Oguchi discloses the system wherein the data controller process the desired retrieved next hop address entry so as to consistent with a corresponding next hop address entry stored in the first memory when the corresponding next hop address entry has been processed (column 47, lines 14-31).

Regarding claim 13, Oguchi discloses, in Fig. 10, the system wherein the list of retrieved entries comprised a plurality of memory blocks each corresponding to the retrieved next hop address entries, each of the memory blocks comprising an address of a corresponding retrieved entry in the cache memory and a next pointer indicating one of an address of a next memory

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block following the memory block and an address of the memory block itself (column 39, lines 45-52).

Claim Rejections - 35 USC § 103

7. Claims 1, 3-7, 9, 16, 17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oguchi et al. (US 6,304,912 B1) in view of Naka (JP 403225412A).

Regarding claims 1, 4, 5, 16 and 22, Oguchi discloses, in Fig. 10, a microprocessor (an operating system) a routing table (a first table 53) for storing a plurality of next hop addresses (column 7, lines 50-55); and a cache memory 43 storing an IP flow table for storing at least one next-hop address which has been selected from the routing table (column 8, lines 5-9). Further, Oguchi discloses that a routing cache for storing contents of a portion of the routing table, and a second table is provided in the routing cache, for storing pointer information pointing to an entry in the first table.

Regarding claims 6 and 7, Oguchi discloses a second table that stores pointer information pointing to the entry in the first table can be provided in the cache memory or in the first routing table.

However, Oguchi does not expressly disclose an address pointer table for storing location information indicating an entry address of each next-hop address stored in the IP flow table (cache memory).

Naka teaches that the presence of file data on a data storage position control file 22 indicating the leading storage position is recorded as an address pointer in the table 21 (claimed address pointer table), so using the pointer accesses a target storage position record.

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It would have been obvious to one ordinary skill in the art at the time the invention was made to add an address pointer table, such as that suggested by Naka, in the apparatus of Oguchi in order to accelerate the routing processing. One of ordinary skill in the art would have been motivated to do this so the constitution of tables can be simplified and in order to improve processing speed in the data processing system.

Regarding claim 3, Oguchi discloses the data searching system further comprising:
a controller (operating system) controlling such that the IP flow table is searched for a desired next-hop address before the routing table and if a hit is found in the IP flow table, then a found next-hop address is used as a search result, and if no hit is found in the IP flow table, then the routing table is searched for the desired next-hop address and a found piece of data is used as a search result and is registered into the IP flow table, wherein a next-hop address with low retrieved frequency is deleted from the IP flow table according to a predetermined condition and all linked memory blocks related to the deleted piece of data are released into available memory blocks (column 39, lines 35-60).

Regarding claim 9, Oguchi discloses, in Fig. 10, a microprocessor (an operating system) a routing table (a first table 53) for storing a plurality of next hop addresses (column 7, lines 50-55); and a cache memory 43 storing an IP flow table for storing at least one next-hop address which has been selected from the routing table (column 8, lines 5-9). Further, Oguchi discloses that a routing cache for storing contents of a portion of the routing table, and a second table is provided in the routing cache, for storing pointer information pointing to an entry in the first

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table. Further, Oguchi discloses that when the routing table is updated then the pointer information points the location of the added entry in the cache memory is also updated (column 40, lines 29-49).

However, Oguchi does not expressly disclose an address pointer table for storing location information indicating an entry address of each next-hop address stored in the IP flow table (cache memory).

Naka teaches that the presence of file data on a data storage position control file 22 indicating the leading storage position is recorded as an address pointer in the table 21 (claimed address pointer table), so using the pointer accesses a target storage position record.

It would have been obvious to one ordinary skill in the art at the time the invention was made to add an address pointer table, such as that suggested by Naka, in the apparatus of Oguchi in order to accelerate the routing processing. One of ordinary skill in the art would have been motivated to do this so the constitution of tables can be simplified and in order to improve processing speed on the whole.

Regarding claim 17, Oguchi discloses the packet switching system wherein when a routing entry has been designated to be processed according to predetermined routing processing, the search processor processes a corresponding retrieved packet flow in the flow table so as to be consistent with the designated routing entry stored in the routing table (column 39, lines 49-61; column 40, lines 29-49).

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Allowable Subject Matter

8. Claims 2, 8, 12, 14, 15, 18-21 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ST
December 11, 2004


JOHN PEZZLO
PRIMARY EXAMINER